About NAVSUP SBIR

Who is involved? Government POCs from offices throughout the Supply community propose SBIR study topics to solicit cost effective solutions for their technical needs. Qualified firms compete for the opportunity to be awarded the venture capital that the federal government (Public Law 106-554) sets aside each year to stimulate technical innovation by small businesses.

What kinds of study topics can be proposed?

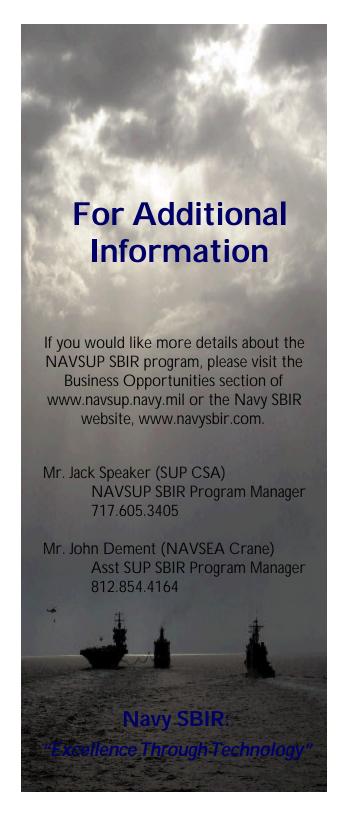
While awards are based on technical and scientific merit, proposals can range from the highly specialized to the more routine work process enhancements. Navy Phase I (design concept) base awards are made for up to a maximum of \$70K (6 month effort) and follow-on Phase II (implementation) base awards for up to \$600K (maximum 2 year effort). Each of the base awards are extendable by executing options, up to a total of \$100K and \$750K, respectively.

When can study topics be submitted? There are usually 2 or 3 SBIR cycles per year, each initiated by ONR correspondence, and followed up by an invitation to submit study topic nominations to the office of the NAVSUP Command Science Advisor (CSA).

Where are the topic submissions processed?

The study topics are screened by the NAVSUP CSA, and selected nominations are forwarding to ONR. Upon notification of formal acceptance from the Navy SBIR program office, a DoD-acknowledged, Navy topic number will be assigned, and the topic will be processed for public release as a formal solicitation. The Government POCs often receive direct questions from potential bidders during an interactive pre-solicitation period.

Why does the SBIR exist? In short, the SBIR program was established in 1982 as a "pro small business" vehicle to both increase the involvement of small businesses in meeting federal R&D needs, and to stimulate the economy. SBIR develops solutions for both government and commercial marketability.





Small Business Innovation Research





A SUMMARY OF CURRENT NAVSUP SBIR INITIATIVES

Navy Integrated Cost /Benefit Analysis Tool (NIC/BAT)

This SBIR Phase II project will produce an internet accessible Life Cycle Cost (LCC) model for rapid completion of Navy related cost/benefit analyses in a collaborative



environment ... linked to existing Navy databases for "autocompletion" of several LCC model inputs ... and also providing authoritative

default values for the vast majority of the 200+ model elements. Reporting results will be available in standard Total Ownership Cost reduction formats.

3-D Anthropometry

The scanning of human body dimensions for apparel design and manufacturing process re-engineering, can enable mass customization with the potential for reduced



inventories, fewer sizing "rejections" and increased customer satisfaction. Phase I of this SBIR study completed the conceptual design of new methods and tools to integrate 3-dimensional anthropometry into apparel design work. Phase II of the study is underway to implement an advanced anthropometric uniform design process. The resulting benefits will include proper sizing and fit for military uniforms resulting in faster product development lead times, increased sup-

ply chain collaboration, and improved

information management.

Elimination of Wood Dunnage

The newest of the NAVSUP SBIR initiatives, this presolicitation topic aims to reduce the considerable Total Ownership Cost associated with the blocking & bracing of ordnance and other bulk loads for intra-station and overthe-road land transportation, as well as stowage aboard CLF

Anticipated proposals are desired to satisfy military specifications that dictate the requirements for truck, container and rail loading of ordnance, inert weapons and other heavy outsized cargo. Potential solutions are expected to include, but not be limited to "air bags", or adjustable metal stanchions requiring little, if any, ship/deck alterations.

Viable solutions should considerably eliminate the costly and complex wood blocking and bracing currently required by Military Standards. Reusable versus disposable materials will be emphasized.



The DoD SBIR Program is funded at about \$1B for FY04 ... the Navy will receive 22% of this total. The annual NAVSUP SBIR budget is less than \$1M ... but growing!

Modular Steam/Heat **Test Device**

Convective heat and steam pose serious threats to Navy personnel during fire fighting and damage control evolu-



tions. The only test environments available for the testing of protective clothing for such conditions are large and very costly to operate. The proposed convective heat and steam test apparatus will enable rapid and low cost evaluation of candidate fabric samples in the laboratory. During SBIR Phase I, a comprehensive design for the complete test

apparatus was developed using unique computational models for fluid flow and heat/mass transfer through textiles. The designed apparatus is compact, modest in acquisition and operational cost, flexible and easy to use. Phase II is currently underway to construct a commercially-ready prototype model.

Hardware Re-certification

This in-process Phase II initiative will automate a unique and commercially viable solution for the problem of verifying and validating hardware upgrades/replacements,

especially obsolete digital parts retargeted to field programmable gate arrays (FPGAs). Integration of tools and languages used in the implementation of this initiative will mitigate the



impact of electronic parts obsolescence, including DMSMS issues, and reduce associated costs.